		Kecei	ving Repo	ort		
D	ate: /3/6 ///	6	Batch	n No: <u>M/</u> 6	1429	32
S	upplier: FACTUS	y 55 K	Dart I	P/0:	1882	6
Packing Slip: Invoice: Receipt:	Yes No No Cr	W SI Q	elease Note A /aybill Attache hipment Com C6 Inspection /ork Order	ed: Ye plete: Ye	es No	o <u>***</u>
Discrepancies	Ś	1 6 42	-	Overstitus	Quantity	<u> </u>
Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
		1				
		Initials	s of receiver	(if shipment	OK) Level	12
Production/A Date Received/Co Initial	sting	7			Locat	ion
H:\FORWS\Pur	chasing\approved purch\REC	NATION INCA				

$^{\prime}$
ot
O
age
ä
Д

Purchase Order Receipt Listing

Thursday, January 17, 2013 8:15:04 AM

All amounts are calculated in domestic currency.

All Vendors PO ID PO18727 Receipt Dates from 1/17/2013 to 1/17/2013 All Line Item Types All Item ID/GL/WOs All Rec. Employees All Currencies Grouped by Vendor ID

Rook Amt		\$750.83	1	\$210.60	: : :	\$256.03		\$367.20	\$192.74	\$35.00	
Ro											
MOD Oct./	MRB Reject Qty	0	0	0	0	0	0	0	0	0	>
	Inspected Qty/ Rejected Qty N (PO U/M)	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	00000	00000	0.0000	nonn:
	Cost Per Unit/ In Recv Value	\$6.39	\$750.83	\$8.10	\$210.60	\$10.45	\$256.03	\$7.20	\$8.38	\$192.74	\$35.00
	Recv Qty (PO U/M)	117.5000		26.0000		24.5000		51.0000	23.0000	0000 1	
	Recv Date/ Recv Emp	1617/2013	DES102	1/17/2013	DES102	1/17/2013	DESJ02	1/17/2013	48.0000 DES.02	DESJ02 1/17/2018) DESI03
	Required Date Required Qty	1/15/2013	115.0000	1/15/2013	25.0000	1/15/2013	24.0000	1/15/2013	48.0000	23.0000	1.0000
	PO U/M / Stock U/M	Factory Steel	50 f	V08 f	50 f	N 12 f	J × 00	%.04.f	J. 80.W	00 x f	
38	Reference/ Description/ Cert Std	VU-FAC001 Factory Str M4130NT0.750W.04 f	9 4130 RD Tube .750	x.049W 124293 M4130NT0 750W 08	3 4130 RD Tube . 750 x.083 W	124293 M4130NTL 000W.12_f	0 4130 RD Tube 1:00 % 120wall	124293 M4130NT0.500W:0 ²	#4130 RD Tube, 500 f x,049W 124293 M4130NT0,500W,08,4	3 4430 RD tube .500 x 083 W 124293 71475-25	PACKING FEE 124293
. حالمه:	Project ID Reference/ Description Cert Std	VU-F			. 18 M						
	Line Nbr/ Insp	Keq lor Name	- 2º		7 %		c oN	4	No 5	Ŷ,	°Z
	Purchase Order ID/ Curr Type	Req endorID\Vendor Name	POI8/2/ IISD								

DOOK AIRE	243.0000 0.0000 0.0000 \$1,812.39 0.0000				
// MRB Qty/ y MRB Reject () Qty	d Received Quantity: to Inspect (PO U/M): otal Reject Quantity: Total Receipt Value: ialance Due Quantity:	The second secon			
Inspected Qty/ Rejected Qty (PO U/M)	Total Received Quantity: Total Qty to Inspect (PO U/M): Total Reject Quantity: Total Receipt Value: Total Balance Due Quantity:				i)
Cost Per Unit/ Recv Value	Total Total	Street, and the street, and th			
Recv Qty (PO U/M)					
Recv Date/ Recv Emp					B
Required Date Required Qty					
PO U/M / Stock U/M					
Reference/ Description/ Cert Std			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Project ID R					

Line Nbr/ Insp Req

Purchase Order ID/ Curr Type Purchase Order Receipt Listing

4		
ı.		
_	_	
1		
ト し	_	
•	$\boldsymbol{\Gamma}$	١
u	,	,
•	•	_
_		•
_		•
_		•
-		•
_		1
_		1
_		•
_		1
_	_	1
_ _	_]
_ _)
_ _ _)
_ _ _		
_ (])
- (2)
- (])
- (2-)		
- <u> </u>		
- <u>(2-)</u>		
	<u></u>	

	PACKING LIST	ST			No. 35731	PG 1 0F	2
	FACTORY STEEL & METAL S 14020 OAKLAND AVENUE DETROIT, MI 48203	SUPPLY	PURCHASE ORDER # PO18727 JOB NAME	BUYER CHANTEL CLAVO1E Tel (613) 632- Fax (613) 632-	VO1E 632-3336 632-4443	SHIP DATE 01/08/2013 SHIP VIA YRC	
	(313)883-6300 PHONE (313)883-4883 FAX		SALES ORDER # ORDER DATE 30587 01/07/2013	SALES REP MICK HALON		RESALE # 59-2958719 CADDLER	
7.4	(/)		SHIP TO DART AEROSPACE 1270 ABERDEEN STREET HAWKESBURY, ON KGA 1K7	SHIP INST YRC PR0# 761-645-8138 TERMS		YRC BLIND Y/N N FOB DETROIT	
	LINE	DESCRIPTION	N. The state of th	WIDTH	STH WEIGHT	UNIT PRICE TOTAL	
		7. 38 T. 38 S. 30 T. 38 S.	n 1198.2 de la la la la companya de	10 , 734, DI	43.099		
E .		Our Tag # Mill 83927	Mill Ref # Heat # Pcs 745838 5	Total Ft 117.5			×
	2 26 FT	4130 CD SMLSS F	4130 CD SMLSS RD TUBE 3/4" OD X .083W	25'RL	15,373		
4		Our Tag # Mill 83928	Mill Ref # Heat # PCS 001M39509 1	Total Ft 26			
] 3/c	3 24.5 FT	4130N CD SMLSS	413ON CD SMLSS RD TUBE 1" OD X .120W	24'/26' RL	27.636		
1//6		Our Tag # Mil 83929	Mill Ref # Heat # Pcs 556126	Total Ft 24.5			
	4 51 FT	4130N CD SMLSS	413ON CD SMLSS RD TUBE 1/2" OD X .049W	19'/24' RL	12.036	<i>.</i>	
		0ur Tag # 83930	Mil! Ref # Heat # Pcs 137954 556125 2	Total Ft 51			
	. 5 24 FT	4130N CD SMLSS	4130N CD SMLSS RD TUBE 1/2" OD X .083W	23' RL	8.870		
	TOTAL WT					_01	TOTAL
	RECEIVED BY - SIGNATURE		RECEIVED BY - PRINTED NAME		DATE RECEIVED		
0S		joj	Copyright 2012 Bayern Software Carmel, Indiana	(317)723-5458 www.bayernsoftware.com	ware.com		

ST	
16	
X	
PA(

	PA	PACKING LIST	ST		No. 35/51	J	2 UF 2
	LINE	E QUANTITY	RIPTION	WIDTH LENGTH	WE I GHT	UNIT PRICE	I O I A I
		1	Our Tag #: Mili Ref # Heat # Pcs Total Ft 83931 1 536742 1	- Ft	, , , , , , , , , , , , , , , , , , ,		i e
		- PC	PACKING CHARGES	1			
			MTRS (CIRCLE) FAX SHIPMENT INVOICE ALL				
			DATE:				
	1						Open
	1					-	=
				=			
10		ŧ				**************************************	
13/0	_				····		
1//6	1.					د د د د د د د د د د د د د د د د د د د	
	<u> </u>					Marie Vienne	
	19						TOTAL
	[i	107 LBS			DATE RECEIVED		
	<u> </u>	CEIVED BY - STANATURE	וארפרדארה הי				
			Copyright 2012 Bayern Software Carmel, Indiana (317)723-5458	3-5458 www.bayernsoftware.com	com		



Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7 Tel: 613 632 9577

Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO18727

Purchase Order Date 1/07/13 PO Print Date 1/07/13

Page Number 1 of 2

Order From:

FACTORY STEEL 14020 OAKLAND AVE. DETROIT,, MI 48203 US

Contact Name

Vendor Phone

313 883 6300

Vendor Fax

313 883 4883

Vendor Account Nbr

Buyer

Requisition Nbr

Tax Resale Nbr

Terms Currency Net 30 USD

FOB

Destination-Collect

Chantal Lavoie

10127-2607

Ship To:

DART AEROSPACE LTD

1270 ABERDEEN HAWKESBURY, ON K6A 1K7 **CANADA**

VU-FAC001



M124293

Line Nb	r Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1 N	/4130NT0.750W.049	4130 RD Tube .750 x.049W	1/15/13 Yes	115.00 f	Yellow Standard	\$6.3900	\$734.85
		Special Inst:	AS PER	SI 4130N STEEL AMS 6371/6360/		£ 0	
2 1	M4130NT0.750W.083	4130 RD Tube .750 x.083W	1/15/13 Yes	24.00 f	Yellow Standard	\$8.1000	\$194.40
	*. ***********************************	Specia! 1-183	AS PER	ISI 4130N STEEL R AMS 6371/6360			
3	M4130NT1.000W.120	4130 RD Tube 1.00 x .120wall	1/15/13 Yes	24.00	Yellow Standard	\$10.4500	\$250.80

No substitution or deviation without consent.

Certificate of Conformity or Material Certification required YES

Change Nbr:

1

ange Date:

1/07/13



Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7

Tel: 613 632 9577 Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO18727

Purchase Order Date 1/07/13 PO Print Date 1/07/13

Page Number 2 of 2

VU-FAC001 Order From: **FACTORY STEEL** 14020 OAKLAND AVE. DETROIT,, MI 48203 US Chantal Lavoie Buyer **Contact Name** Requisition Nbr Vendor Phone 313 883 6300 10127-2607 Tax Resale Nbr 313 883 4883 Vendor Fax Net 30 Terms Vendor Account Nbr USD Currency Destination-Collect **FOB** Special Irst: MATERIAL: AISI 4130N STEEL TUBING MIL-T-6736 OR AMS 6371/6360/6361/6362 6373/6374 \$345.60 Yellow Standard \$7.2000 48 00 4130 RD Tube .500 1/15/13 M4130NT0.500W.049 x.049W 31 Yes Special Inst: MATERIAL: AI\$I 4130N STEEL TUBING MIL-T-6736 OR AMS 6371/6360/6361/6362 6373/6374 \$192.74 23.00 Yellow Standard \$8.3800 1/15/13 M4130NT0.500W.083 4130 RD tube .500 x .083W Yes MATERIAL: AISI 4130N STEEL TUBING Special Inst: AS PER MIL-T-6736 OR AMS 6371/6360/6361/6362 6373/6374 \$35.00 Yellow Standard \$35.0000 1/15/13 1.00 PACKING FEE Each Yes

> MATERIAL CERTIFICATION REO'D UPON DELIVERY

PO Total:

1/07/13

No substitution or deviation without consent.

\$1,753.39

Certificate of Conformity or Material NO Certification required (YES

Change Nbr:

ORDER ACKNOWLEDGMENT

SC	1 188.111								
	1270 ABERDEEN STREET			(213)883_6300 PHONE	2.50	DETERMINATION OF THE ABOUT		FACTORY CTEEL & METAL SUPPLY	ORDER ACKNOWLEDGMENT
	1270 ABERDEEN STREET HAWKESBURY, ON K6A 1K7		59-2958719	RESALE #	 So the state of th	JOB NAME	A MARTINE SECTION OF THE PROPERTY OF THE PROPE		GMENT
TERMS NET 30 DAYS	SHIP INST YRC	PURCHASE ORDER # P018727		ES REP	(613) 632-4443	(613) 632-3336	CHANTEL CLAVOIE	BUYER	No. 30587
DETROIT	BLIND Y/N	YRC	YRC	SHIP VIA	01/10/2013	SHIP DATE	01/07/2013	ORDER DATE	PG 1 0F 1

·.	-										
TOTAL WT 100 LBS			1 PC	5i	4 2 PCS 4	3 1 PC 4	2 1 PC	5 PCS	LINE QUANTITY	14020 OAKLAND AVENUE DETROIT, MI 48203 (313)883-6300 PHONE (313)883-4883 FAX SOLD TO DART AEROSPACE 1270 ABERDEEN STREET HAWKESBURY, ON K6A 1K7	Y SIEEL
SUBTOTAL \$1,672.18		Chantel &	PACKING CHARGES	4130N CD SMLSS RD TUBE 1/2" OD X .083W	4130N CD SMLSS RD TUBE	4130N CD SMLSS RD TUBE	4130 CD SMLSS RD TUBE 3/4" OD X .083W	4123_CD SMLS' SEETUES 324" OD X 1049W R	DESCRIPTION	X	
CUTTING \$0.00		Juna		E 1/2" OD X .083W	E 1/2" OD X .049W	E 1" OD X .120W	3/4" OD X .083W	3.24"-OD X 1049W * 144		JOB NAME RESALE # 59-2958719 SHIP TO DART AEROSPACE 1270 ABERDEEN ST HAWKESBURY, ON	0001-10
\$0.00		6						Application of the second seco		STREET V K6A 1K7	
									WI DITW	Tel (() Fax () SALES MICK HI PURCHA PO1872 SHIP II YRC TERMS NET 30	LINVIDO LINVIDO
				23' RL	19'/24' RL	24'/26' RL	25'RL	19'/23' RL	LENGTH	Tel (613) 632-3336 Fax (613) 632-4443 SALES REP MICK HALON PURCHASE ORDER # PO18727 SHIP INST YRC TERMS NET 30 DAYS	- 37
				8.686	10.148	28.2	14.487	38.514	WEIGHT	3 6	When it is the second s
- A			35.00/PC	8.38/FT	7.20/FT	10.45/FT	8.10/FT	6.39/FT	UNIT PRICE	SHIP DATE 01/10/2013 SHIP VIA YRC CARRIER YRC BLIND Y/N N FOB DETROIT	01/07/2013
\$1,672.18			35.00	196.93	309.60	261.25	198.45	670.95	TOTAL		

Copyright 2012 Bayern Software Carmel, Indiana (317)723-5458 www.bayernsoftware.com



Phone: (815) 673-1515 Fax: (815) 672-7848

PRODUCT CERTIFICATION

SALES ORDER - LINE ITEM/ RLS 040027 - 1 / 0

SOLD TO

WORK ORDER 012409 HEAT NUMBER 745838

MELT SOURCE Benteler Steel Corp - Germany

ISO 9001:2000 AND TS 16949:2002 CERTIFIED

Factory Steel & Metal Supply Co. 14020 Oakland Avenue Detroit, MI 48203 USA

CUSTOMER P.O.	CUSTOMER I	PART		1	QUANTITY		LADING NO	ş	SHIPME	NT DATE
PART DESCRIPTIONHOZOD: 0.7500" Max: 0 Wall: 0.0490" Max: 0 Length: 19.00' /26.00' Spec: Mil-T 6736B Se Grade: 4130 Finish: Cond N	0.7550" Min 0.0530" Min	0.7500" : 0.0450"					ON,	L 13/611	24	
CERTIFICATION REQUIF This material was Eddy (This material is stress re The Grain size is determ This raw material was m as Frequency, and Sever Yield is determined by u	Current tested a elief annealed. ined and report agnetic particle rity to AMS 230	The final and ted by the rate inspected 1, latest rev	invaling ter av materia by the raw ision.	nperature I supplier	was 1150 de in accordan	egrees fah ce to AST!	VI E-112.	J and/or ASTM E	≣-1444, ar	nd rated
.2.2			Cł	nemical	Analysis					
C Mn .325 .55	P S	Si .258	A1 .037	Cr .90	Мо .17	Ni. .09		Cu V 10 .003	Ti .004	Sn .010
			Ph	ysical P	roperties		·			
Freq. Severit	- :	ize 5								,
				Melt S	ource					
Melt Source Benteler Steel Corp	o - Germany							7		
£			Additi	onal Sp	ecification	ı(s)				
TEST Tensile Yield Elongation Rockwell B Rockwell C TEST Decarb/OD Total ID/OD decarb		UNITS Psi Psi % Rb Rc RESULT Pass Pass	The second secon	#TESTS 6 6 6 0 0	111	HGH 8390 4070 20	LOW 114560 109820 13	AVERAGE 116552 112030 17	<u>s</u> 1	D-DEV 1264 1386 3

I certify that the results are a true and correct copy of the records prepared and maintained by Plymouth Tube Company Streator in compliance with the requirements of the cited specification. Chemistry is as

Gerry Cross



PRODUCT CERTIFICATION

SALES ORDER - LINE ITEM/ RLS 040027 - 1 / 0

SOLD TO

USA

WORK ORDER 012409 HEAT NUMBER 745838

MELT SOURCE Benteler Steel Corp - Germany

Factory Steel & Metal Supply Co. 14020 Oakland Avenue Detroit, MI 48203

Phone: (815) 678-1515 Fax: (815) 672-7348

ISO 9001:2000 AND TS 16949:2002 CERTIFIED

CUSTOMER P.O. CUSTO	MER PART		.QUA	ANTITY	L'ADING NO	SHIPMENT DATE
PART DESCRIPTION#07500490 OD: 0.7500" Nax: 0.7550" Well: 0.0480" Max: 0.0530" Length: 19.00' /25.00' Spec: Mil-T 67366 Seamless / Grade: 4130 Finish: Cond N	Min: 0.7500" Min: 0.0450"				and 1	3/0//24
AMS-T 6736A, 6360L & 6371J		Addition	al Specific	cation(s)		

This test report data is for the heat Chemistry Stated above.

The material in this test report is:

- 1) Free from Polybrominated Siphervis (PBB), Polybrominated Diphenyl Ethers (PBDE), and Mercury contamination.
- 2) NAFTA compliant.

End of Certification

I certify that the results are a true and correct copy of the records prepared and maintained by Plymouth Tube Company, Streator in compliance with the requirements of the cited specification. Chemistry is as reported by the Steel supplier. This test report cannot be reproduced or distributed except in full without the

Gerry Cross

Quality As

TEST REPORT

MICHIGAN SHIPMEN seamless tube 001 SOUTH LYON, MICHIGAN 48178 9203 MICHIGAN SEAMLESS TUBE DI WI NET SLS GR SLS ACCOUNT NUMBER CUSTOMER ORDER NUMBER | DATE COM RDER NUMBER 1 PT 01 | 02598001FCO í 16 16 51 00 05/12/04 8441 014486 FACTORY STEEL & METAL SUPPLY SN FACTORY STEEL & METAL SUPPLY TR 14020 OAKLAND INV 14020 DAKLAND AVENUE T DETROIT MI 48203 48203 DETROIT IM TING PPD TRUCK PEN TOP/FULLY TARPED/FOR SOUTH LYON MI REQUESTED PRODUCT COLD DRAWN 06/18/04 PER SPEC 130-3 (EF/MQ) ROUND DESCRIPTION CD ALLOY ATRORAFT 06/18/04 EAMLESS

84 NPBYCTONEN YLD. AIM 85 FSI.CERT TO A519-96.MILT-6736BN
OTICE 2.AMS-6360K(W/DECARB LEVELS TO AMS-6371H) & AMS-T-6736N.
/R W/SHIPMENT TO INCL CHEM. FHYS. DECARB. JOMINY. GRAIN SIZE &
RINNELL. PRODUCE FROM 1-HEAT. MARK TO INCLUDE GRADE. A519-96.
ILT-6736BN NOTICE 2.AMS-T-67368.AMS-6371H & AMS-6360K.

			1 1 1		1, 10			
TEM	QUANTITY	O.D.	İ.D.	WALL	LENGTH	WT/FT	WEIGHT	1
		.750		.083 AVG		.5912		11:47:52 06/21/04

TM BALE --BALE-UM NUM PCS FTG HEAT NO.
1 1 1 211 5406 001M39509

LENGTH

ITM STATUS PART NUMBER

RAND 19'-26' COM

on 13/01/24

HEAT NO.	С	Mn	Р	S	Si	Ni	Cr	Мо	Cu	Al	REN	MARKS
01M39509	. 280	.520	.011	1020	.220	. 150	.860	.160	.190	.018	EF MAC	STEE
w.						-		.* .		-2	(1)	
HEAT NO.	ULT. STR. PS		YIELD, PSI	% ELONG	HAF	RDNESS	HYDRO	TEST PSI	ULTRA SO	NIC % EDD	Y CURRENT	EXPANSIC
01M39509	114.28	1	06.857 06.285	18.7		232-239 232-239						* +
01M39509	110.91		07.471	18.7	3.0	232-239	BEND	FLAT	ΓEN FL	ARE RE	V. FLATTEN	FLANGI
01M39509	110.79	75 1	05.113	18.7		232-239						
ECARD OK	GRAIN	SIZE	6							0		

REQ 0.000 SEV 0.000 ACROS S1. R1. C1 1 J2 J3 J4 J5 J6 J7 J8 J9 J10 9 48 45 38 37 37 35 34 33 31 gue funten

We hereby certify that the reported data are corre



MATERIAL TEST REPORT

Page 1 of 1

Sold To: 3300035

FACTORY STEEL & METAL SUPPLY CO.

14020 OAKLAND AVENUE

DETROIT MI 48203

Ship To: 3300035

FACTORY STEEL & METAL SUPPLY CO.

14020 OAKLAND AVENUE

DETROIT MI 48203

Purchase Order:

8485

Sales Order:

126887

Material:

A893100012005461 AM 67 6736 10000D 120AW AMS6360,6371J

Delivery:

80202547

Description:

AMS-6360L/AMS-6371J/A 6736B COND N./MIL-T-6736B

AMS 2301K / ASTM A519 S4130 A519

Test: NDT ELECTRIC TESTED TO ASTM A450 & E309. MAGNETIC INSPECTED TO AMS2301.

SEAMLESS 4130

Origin of Melt

Manufactured in

A519

%			, ,	(4				
CARBON LDL 0.320 MANGANESE LDL 0.530 PHOSPHORUS LDL 0.007 SULFUR LDL 0.002 SILICON LDL 0.240 NICKEL LDL 0.140 CHROMIUM LDL 0.870 MOLYBDENUM LDL 0.170 COPPER LDL 0.120 ALUMINUM LDL 0.037 R-EACH LDL 0.000 R-TOTAL LDL 0.000 Jitimate (PSI) 118200 / 118500 Yield (PSI) 95,100 / 96,800 Glongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED	Heat Number:							
MANGANESE LDL 0.530 PHOSPHORUS LDL 0.007 SULFUR LDL 0.002 SULFUR LDL 0.002 SILICON LDL 0.240 NICKEL LDL 0.140 CHROMIUM LDL 0.870 MOLYBDENUM LDL 0.170 COPPER LDL 0.120 ALUMINUM LDL 0.037 R-EACH LDL 0.000 R-TOTAL LDL 0.000 Vield (PSI) 95,100 / 96,800 Elongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED		···						
PHOSPHORUS LDL 0.007 SULFUR LDL 0.002 SILICON LDL 0.240 NICKEL LDL 0.140 CHROMIUM LDL 0.870 MOLYBDENUM LDL 0.170 COPPER LDL 0.120 ALUMINUM LDL 0.037 R-EACH LDL 0.000 R-TOTAL LDL 0.000 Jitimate (PSI) 118200 / 118500 Yield (PSI) 95,100 / 96,800 Blongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED	CARBON	LDL	0.320	1.1				 -
SILICON LDL 0.240 NICKEL LDL 0.140 CHROMIUM LDL 0.870 MOLYBDENUM LDL 0.170 COPPER LDL 0.120 ALUMINUM LDL 0.037 R-EACH LDL 0.000 R-TOTAL LDL 0.000 Sitimate (PSI) 118200 / 118500 Yield (PSI) 95,100 / 96,800 Elongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED	MANGANESE	LDL	0.530				,	,
SILICON LDL 0.240 NICKEL LDL 0.140 CHROMIUM LDL 0.870 MOLYBDENUM LDL 0.170 COPPER LDL 0.120 ALUMINUM LDL 0.037 R-EACH LDL 0.000 R-TOTAL LDL 0.000 Sitimate (PSI) 118200 / 118500 Yield (PSI) 95,100 / 96,800 Elongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED	PHOSPHORUS	LDL	0.007			my	12/4.	/
SILICON LDL 0.240 NICKEL LDL 0.140 CHROMIUM LDL 0.870 MOLYBDENUM LDL 0.170 COPPER LDL 0.120 ALUMINUM LDL 0.037 R-EACH LDL 0.000 R-TOTAL LDL 0.000 Sitimate (PSI) 118200 / 118500 Yield (PSI) 95,100 / 96,800 Elongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED	SULFUR	LDL	0.002	1			- 13/0//	24
CHROMIUM LDL 0.870 MOLYBDENUM LDL 0.170 COPPER LDL 0.120 ALUMINUM LDL 0.037 R-EACH LDL 0.000 R-TOTAL LDL 0.000 Sitimate (PSI) 118200 / 118500 Yield (PSI) 95,100 / 96,800 Elongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED	SILICON	LDL	0.240					,
MOLYBDENUM LDL 0.170 COPPER LDL 0.120 ALUMINUM LDL 0.037 R-EACH LDL 0.000 R-TOTAL LDL 0.000 Sitimate (PSI) 118200 / 118500 Sield (PSI) 95,100 / 96,800 Elongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED	NICKEL	LDL	0.140	i i				
COPPER LDL 0.120 ALUMINUM LDL 0.037 R-EACH LDL 0.000 R-TOTAL LDL 0.000 Sitimate (PSI) 118200 / 118500 Sield (PSI) 95,100 / 96,800 Elongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED	CHROMIUM	LDL	0.870	1.				
ALUMINUM LDL 0.037 R-EACH LDL 0.000 R-TOTAL LDL 0.000 Sitimate (PSI) 118200 / 118500 Sield (PSI) 95,100 / 96,800 Elongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED	MOLYBDENUM	LDL	0.170	1				
R-EACH LDL 0.000 Ditimate (PSI) 118200 / 118500	COPPER	LDL	0.120					
Column	ALUMINUM	LDL	0.037					
Sitimate (PSI) 118200 / 118500 Yield (PSI) 95,100 / 96,800 Blongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED %	R-EACH	LDL	0.000					
Ditimate	R-TOTAL	LDL	0.000					
Yield (PSI) 95,100 / 96,800 Elongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED %	•					1.3		
Yield (PSI) 95,100 / 96,800 Elongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED %	Ultimate (PSI)	118200 / 118500					
Elongation (%) 26 / 27 Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED		j						. 6
Hardness (RB) 98 / 100 Grain Size 9.000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED	· · · · · · · · · · · · · · · · · · ·	•						
Grain Size 9,000 Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED)						
Frequency rate 0.029 Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED %	Grain Size	•						
Severity 0.020 Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED %								
Decarb OD Total (IN) PASSED Decarb ID Total (IN) PASSED %								
Decarb ID Total (IN) PASSED %	•	IN)		ŀ				
	•							
		\ <i>,</i>						
	Jominy (RC)	Heat		40 .18/	16= 32			

Webco Industries, Inc. certifies that the material described was manufactured and tested and/or inspected in accordance with the specification and fulfills requirements in such respect.

Germany

USA

This document conforms to the requirements of Specification EN 10204 Inspection Document Type 3.1. This document was prepared by means of electronic processing and is valid without signature.

Date: 01/12/2011

Tony Stubblefield Quality Manager



MATERIAL TEST REPORT

Page 1 of 1

Sold To: 3300035

FACTORY STEEL & METAL SUPPLY CO.

14020 OAKLAND AVENUE

DETROIT MI 48203

Ship To: 3300035

FACTORY STEEL & METAL SUPPLY CO.

14020 OAKLAND AVENUE

DETROIT MI 48203

Purchase Order:

1609

Sales Order:

137954

Material:

A893050004905461 AMS-T-6736 05000D 049AW AMS6360,6371

Delivery:

80223699

Description:

AMS-6360L/AMS-637 MAS-T-6736B COND N./MIL-T-6736/ASTM A519

SEAMLESS 4130.

Test: NDT ELECTRIC TESTED TO ASTM A450 OR A1016 & APPLICABLE TEST METHOD E309 OR E426. MAGNETIC INSPECTED TO AMS2301.

Heat Number:		556125 %		
CARBON	LDL	0.310		
MANGANESE	LDL	0.530	1 2	
PHOSPHORUS	LDL	0.006	1	
SULFUR	LDL	0.001		
SILICON	LDL	0.240		
NICKEL	LDL	0.100		
CHROMIUM	LDL	0.880		
MOLYBDENUM	LDL	0.170	1 :	
COPPER	LDL	0.080		
ALUMINUM	LDL	0.034	-	
R-EACH	LDL	0.000		
R-TOTAL	LDL	0.000		
1		1	1 2	

Ultimate (PSI) 116800 / 117700 Yield. (PSI 98,600 / 98,800 Elongation (%) 15 / 18 Hardness (RC) 19 / 19 **Grain Size** 9.000 Frequency rate 0.039 Severity 0.039 Decarb OD Total (IN) **PASSED** Decarb ID Total (IN) **PASSED**

Jominy (RC)

Heat: 556125 J5/16= 35 J8/16= 30

Origin of Melt

Germany

Origin of Raw Material

Germany

Manufactured in

USA

Webco Industries, Inc. certifies that the material described was manufactured and tested and/or inspected in accordance with the specification and fulfills requirements in such respect.

This document conforms to the requirements of Specification EN 10204 Inspection Document Type 3.1.

This document was prepared by means of electronic processing and is valid without signature.

Date: 01/05/2012

al 13/0/24

Tony Stubblefield
Quality Manager



PLYMOUTH TUBE CO USA PRODUCT CERTIFICATION

1209 East 12th Street, Streator, Illinois 61364 Phone: (815) 673-1515 Fax: (815) 672-7343 SALES ORDER - LINE ITEM/RLS 041992 - 1 / 0

WORK ORDER 012974 HEAT NUMBER 536742

MELT SOURCE Benteler Steel & Tube-Germany

SOLD TO

Factory Steel & Metal Supply C 14020 Oakland Avenue Detroit, MI 48203 USA ISO 9001:2000 AND TS 16949:2002 CERTIFIED

CUSTOMER P.O. CUSTOME 008296	R PART	QUANT	TY	LADING I	NO	SHIPMENT DATE
OD: 0.5000" Max: 0.5050" N	330,J111 lin: 0.5000" lin: 0.0760" rcraft				A] 131	10/124
CERTIFICATION REQUIREMENTS						
		Chemical An	alysis			•
C Mn P .310 .52 .006 .	8 Si 003 .250	Al Cr .033 .93	Мо .18	Ni Pb .09 .001	Cu V .12 .003	Ti Sn .003 .012
		Physical Prop	erties			
Freq. Severity Grai	n Size 9					
		Mechanical Pro	perties			
TEST Tensile Yield Elongation Rockwell B Rockwell C	<u>UNITS</u> Psi Psi % Rb Rc	#TESTS 6 6 6 0 0	HIGH 121400 114050 36	LOW 118470 112280 20	AVERAGE 119642 113135 28	STD-DEV 1072 640 7
TEST Decarb/OD Total ID/OD decarb	RESULT Pass Pass	%			ž.	e same of
		Additional Specif	ication(s)			
AMS-T 6736A, 6360L & 6371J	3.0					
This test report data is fo	-		ove.	44		
The material in this to the second of the se			Polybro	minated Dipl	nenyl Ethers	

I certify that the results are a true and correct copy of the records prepared and maintained by Plymouth Tube Company, Streator in compliance with the requirements of the cited specification. Chemistry is as reported by the Steel supplier. This test report cannot be reproduced or distributed except in full without the

Gerry Cross